The Art of Paradigm Maintenance:

How the ‘science of monetary policy’ mismanages inflation (2021-2023) and gets away with it

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Plenary session I: Causes of inflation

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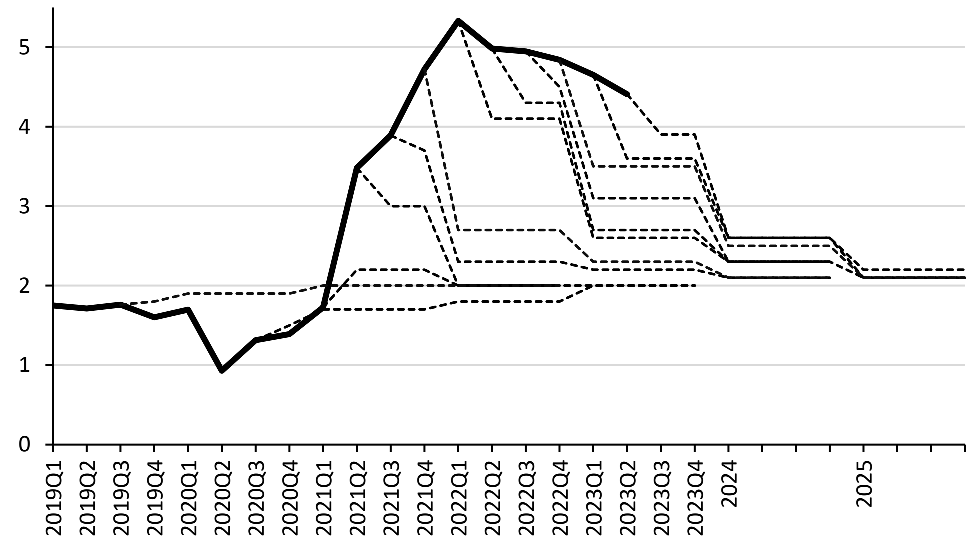
The paper can be found here:

https://www.ineteconomics.org/perspectives/blog/in-the-footsteps-of-ptolemy-the-science-of-monetary-policy-and-the-inflation-of-2021-2023

The recent increase in inflation took U.S. monetary policy makers by surprise ………..

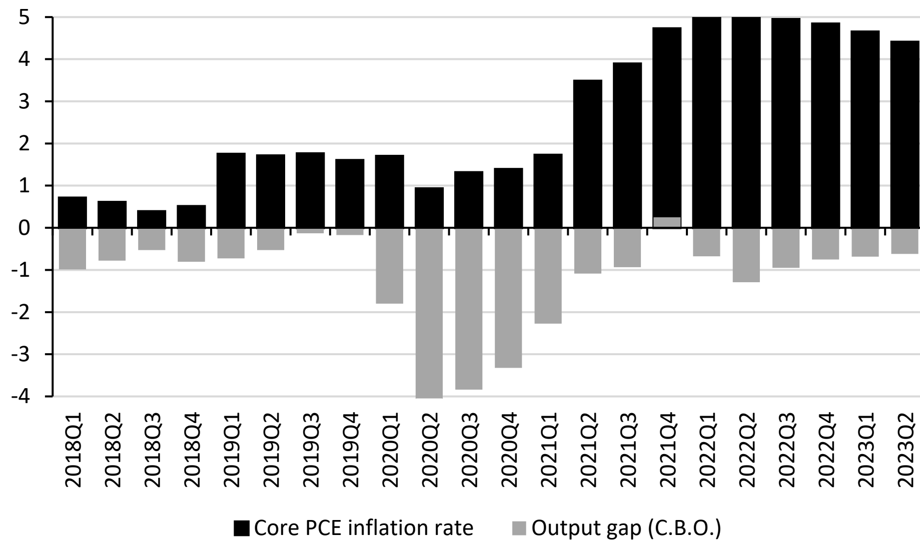
Signals of the '**science of monetary policy**' did not work:

- **Output gap** remained negative
- **Unemployment gap** turned negative but is small
- The **Phillips curve** had flattened in the past two decades and did not suggest that inflation would rise so steeply.

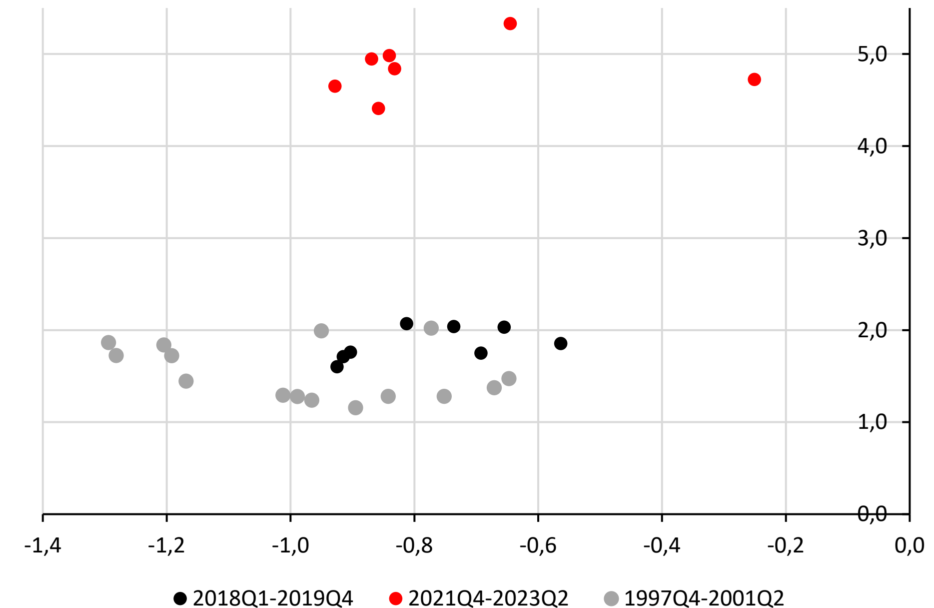


The U.S. core PCE inflation rate and the inflation forecast of the Summary of Economic Projections (SEP) (dashed lines) of the Federal Reserve up to and during the inflation surge (2019Q1-2023Q2; percentages).

Output gap and unemployment gap: No signal; “Houston, we have a problem”



U.S. core PCE inflation and the output gap (2018Q1-2023Q2; percentages)



U.S. core PCE inflation and the unemployment gap (percentages)

Inflation expectations were not accurate as well

- 5-year inflation expectations according to the Cleveland Federal Reserve never did go up to more than 2.55% during 2021-2023
- The (bond) yield curve does not offer accurate longer-term inflation expectations (> 2 years); short-run spreads are determined mostly by actual inflation
- Future inflation expectations are based on current and lagged inflation (Fair 2021, 2022; Rudd 2022; Weber *et al*. 2022; Candia, Coibion and Gorodnichenko 2022)

The re-emergence of inflation thus threw the ‘science of monetary policy’ off the rails

Paraphrasing John Kenneth Galbraith:

Faced with the choice
between changing their paradigm
and proving that there is no need
to do so,
the ‘scientists of monetary policy’
got busy on the proof.

The art of paradigm maintenance … following Ptolemy

Adding epicycles—

or three ways to blame workers for the inflation they did not cause

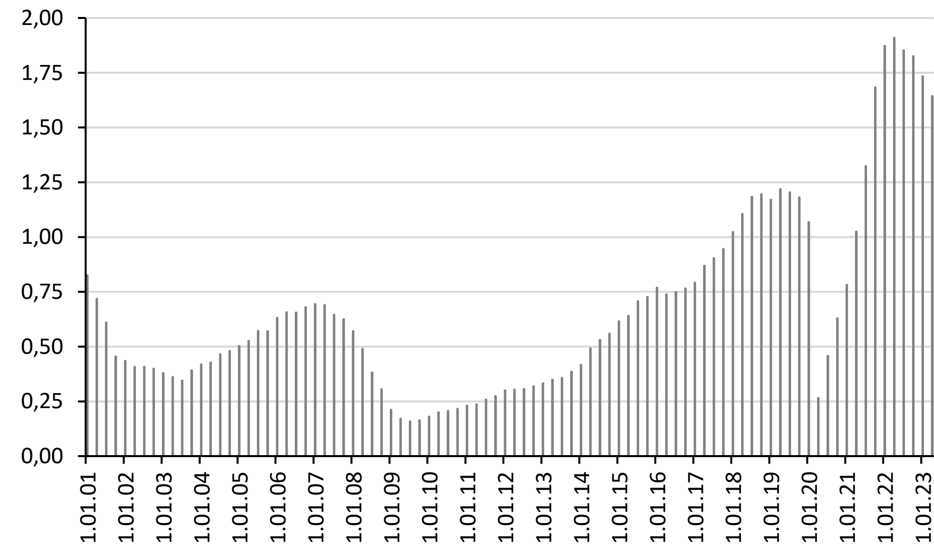
……

- using the vacancy ratio as the appropriate measure of real economic activity
- hammering on the considerable risk of an imminent wage-price spiral
- the resurrection of the non-linear Phillips curve

First epicycle: Enter the vacancy ratio (or V/U3)

The vacancy ratio:

- Average value of 0.57 during 2001-2020
- Sudden increase to almost 2 in the 2nd quarter of 2022
- Sign of extremely tight labour market? Or not?
- Fits the New Keynesian wage-price spiral inflation story .....



The vacancy ratio:

the U.S. economy (2001Q1-2023Q2)

First epicycle: Why is the U.S. vacancy ratio so high?

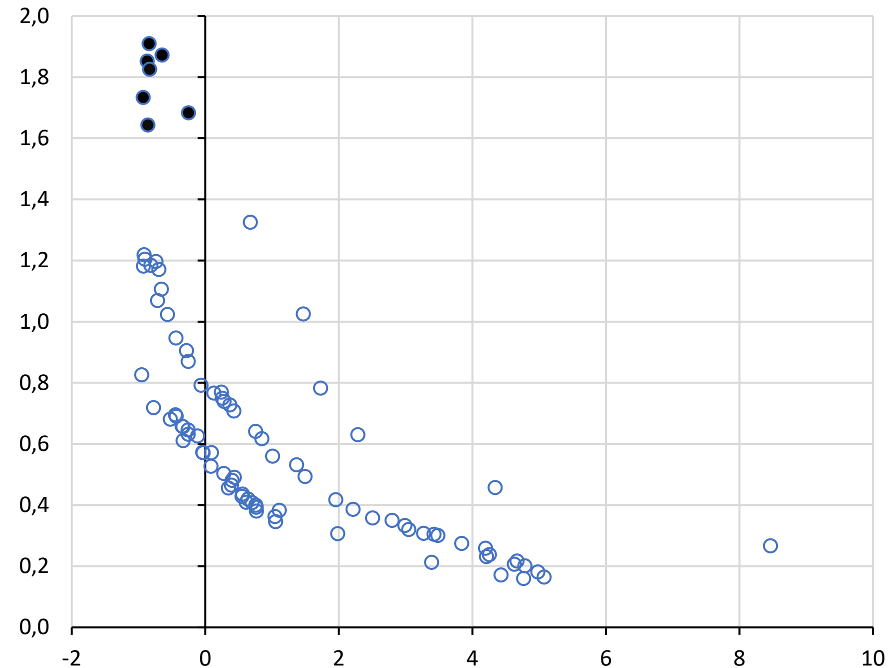
Problems with the vacancy ratio:

- Observations for 2021Q2-2023Q3 are outliers (> mean + 2σ)
- Quit rate increased as well
- Job-to-Job (J2J) transitions rate increased as well

Great Resignation =

Great Occupational Restructuring,

because of COVID-19



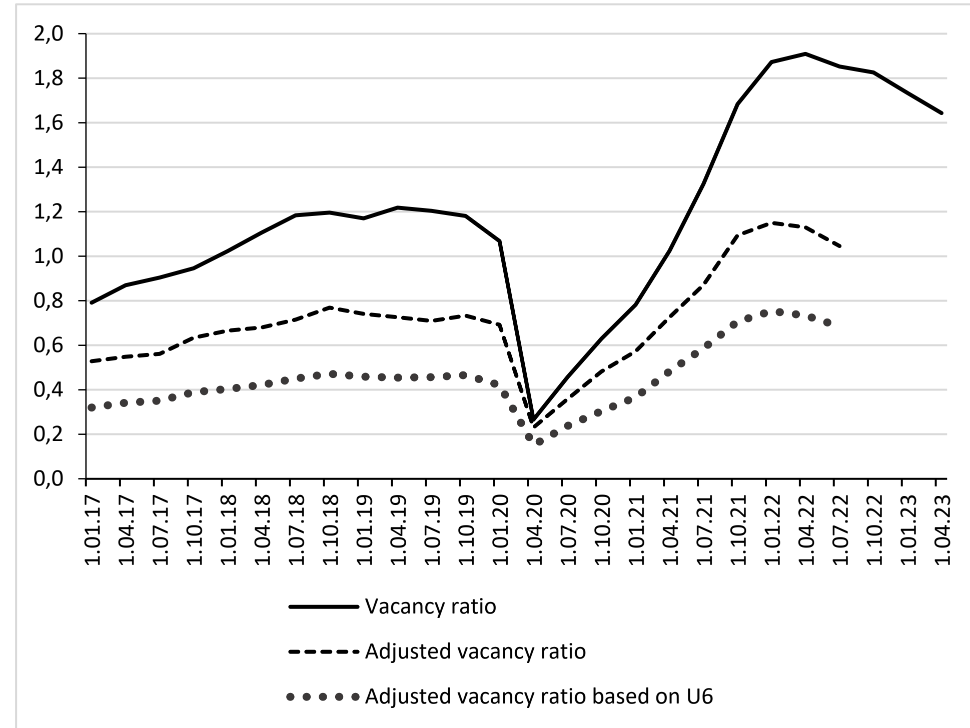
The unemployment gap versus the vacancy ratio: the U.S. economy (2001Q1-2023Q2)

First epicycle: Oh dear, which vacancy ratio?

Alternative definitions of the vacancy ratio indicate that labour markets are less tight:

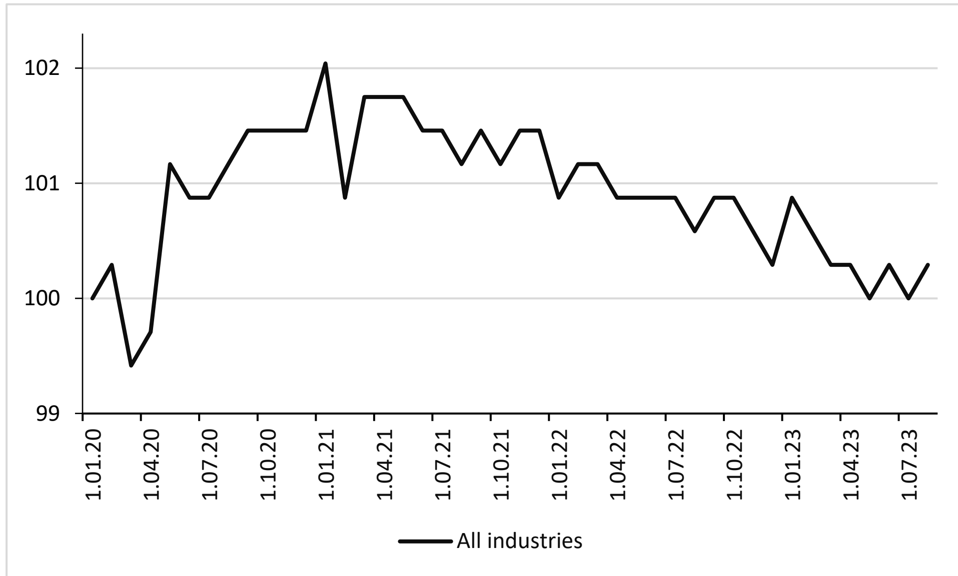
- Conventional: V/(U3)
- Adjusted: V/(U3 + J2J)
- Adjusted adjusted: V/(U6 + J2J)

J2J = the number of workers who switched job (during a month)



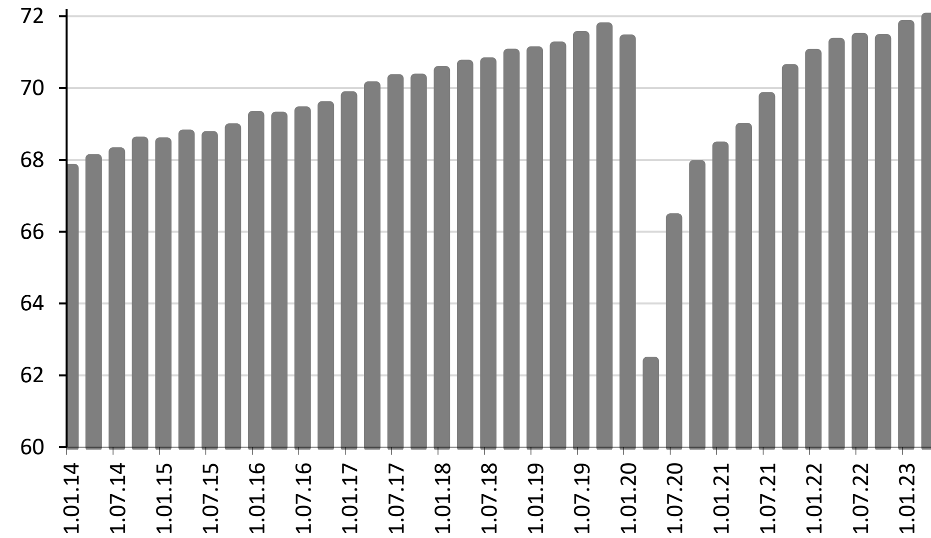
adjusted vacancy ratios

First epicycle: No tightness according to other labour market indicators ....



Average Weekly Hours of All Employees, Total Private

(January 2021 – August 2023; monthly index January 2020 = 100)

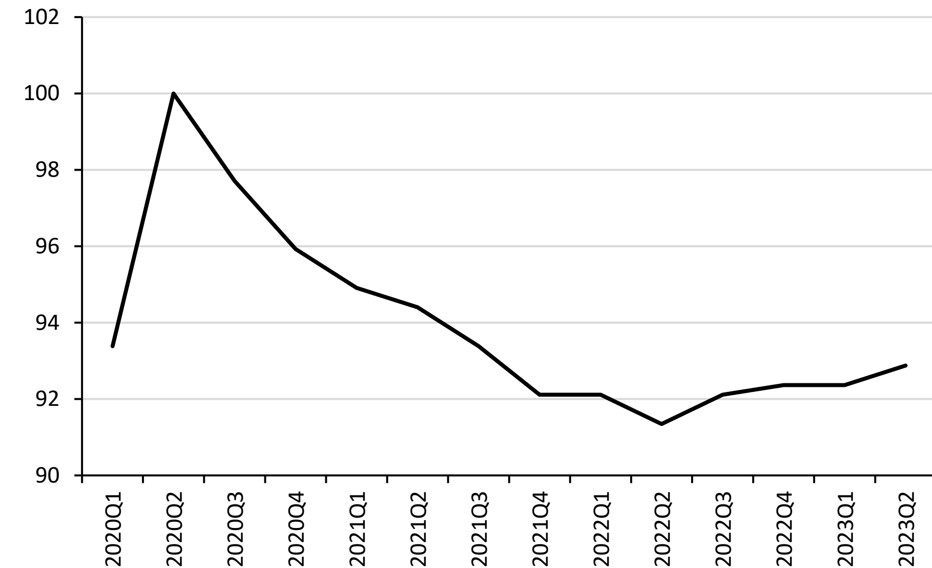


U.S. Employment Rate: Aged 15-64: All Persons (2020Q1 – 2023Q2; percent)

First epicycle: Sorry, still no tightness to be seen ....

These are not exactly signals of an extremely tight labour market:

- **Real wages** have declined (see figure on the RHS)
- Real median household earnings have declined during 2022 (U.S. Census Bureau, Sept. 2023)
- The U.S. **labour income share** has steadily decreased during 2021-2023



Cumulative decline in real earnings of wage and salary workers in the U.S. (2020Q2-2023Q2; index 2020Q2 = 100)

First epicycle: The verdict is in: The uncritical use of the vacancy ratio is bad science

- The sharp rise in the conventional vacancy ratio (V/U3) in the U.S, is caused by the drastic occupational and sectoral restructuring that occurred during the COVID-19 crisis.
- The very high vacancy ratio does not reflect a general tightness of the U.S. labour market. It is *not aligned* with important alternative labour market indicators.
- Uncritical use of the vacancy ratio as an indicator of the tightness of the labour market is bad scientific practice. It amounts to cherry-picking an indicator that is 'biased' to showing an exaggerated tightness of the labour market.
- Uncritical use of the vacancy ratio sets monetary policymakers up to deliver significantly more monetary tightening than can be justified on the basis of alternative, more reliable indicators.

Second epicycle: If you only have a hammer (Phillips curve), everything looks like a nail (a wage-price spiral)

The ‘scientists of monetary policy’ claim that:

- the pandemic relief spending by the Biden administration led to an excess demand
- The excess demand led to an “extremely tight” labour market in the U.S. (= high V/U3)
- The “extremely tight” labour market led to nominal wage growth and a wage-price spiral

The evidence is saying something else, however:

- Ferguson and Storm (2023), Asdourian, Salwati, & Sheiner (2022) and Parker, Schild, Erhard & Johnson (2022) show that the surge in U.S. inflation was not caused by pandemic relief spending
- The U.S. labour market is not as tight as is suggested by high V/U3
- There is no evidence of a wage-price spiral

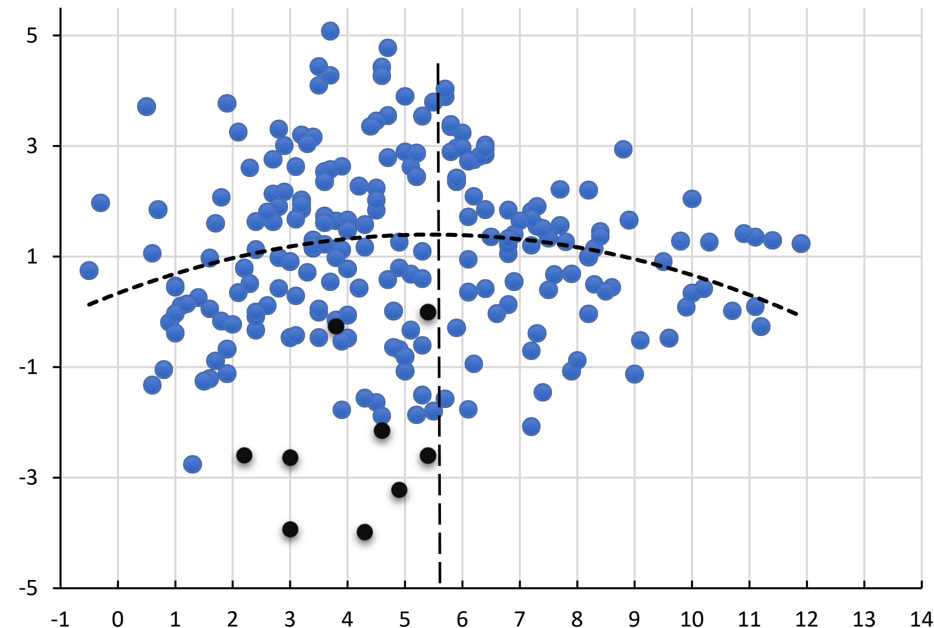
Second epicycle: Repeating the same story again and again does not render it true ………

Domash and Summers

(2022a, 2022b) argue that American workers will shoot themselves in the foot if they claim nominal wage growth in excess of 5.6% …….

But:

- No theory → **AD HOC-ery**
- Poor explanatory power
- No predictive power (see the black dots in the Figure)



Real compensation growth versus nominal compensation growth, US non-farm employees (1965Q1-2019Q4 and 2021Q2-2023Q2)

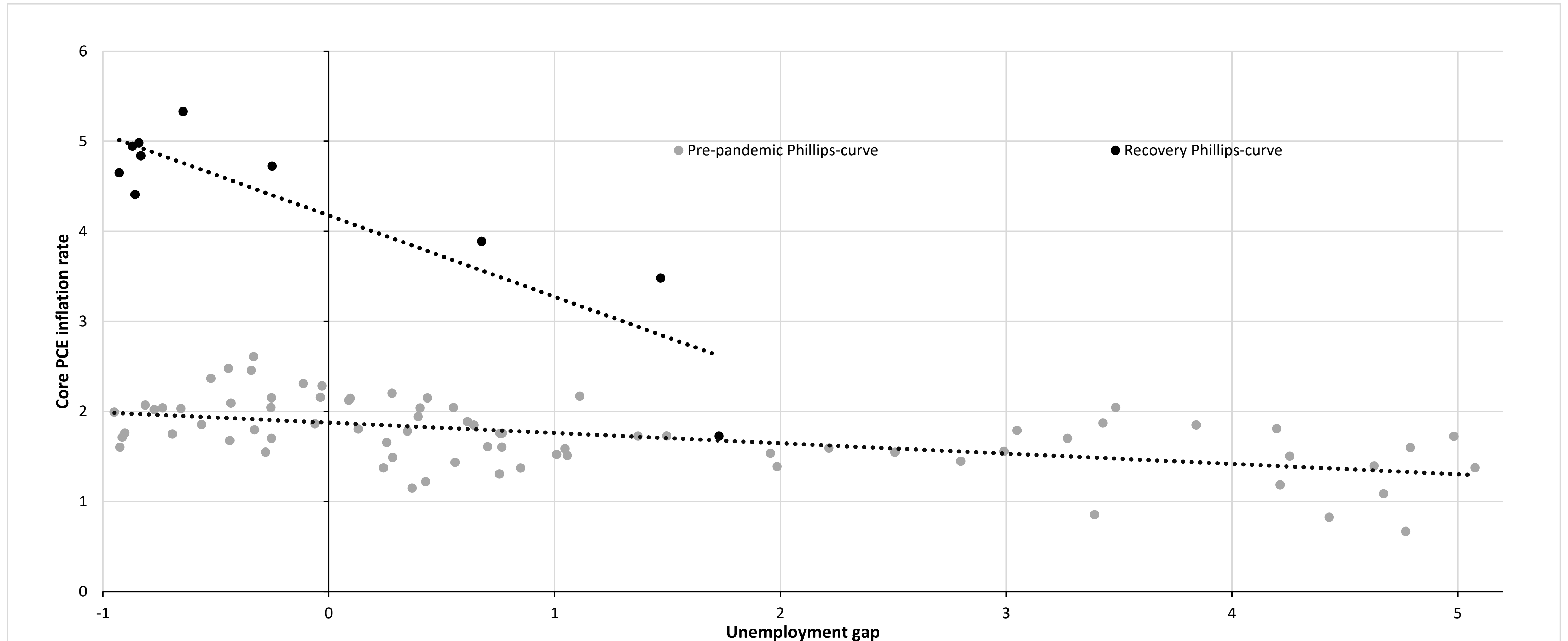
Second epicycle: linear Granger causality testing .... or putting the wage-price spiral story to bed

		Nominal wage growth GC PCE inflation rate (monthly data)		PCE inflation rate GC nominal wage growth (monthly data)	
Period	Lags	P-value	decision	P-value	decisions
January 1965-August 2023 (n = 692)	13	0.40	No GC	0.01	Yes GC
January 1965-Decem. 2001 (n = 444)	14	0.19	No GC	0.00	Yes GC
January 2002-August 2023 (n = 248)	6	0.56	No GC	0.04	Yes GC

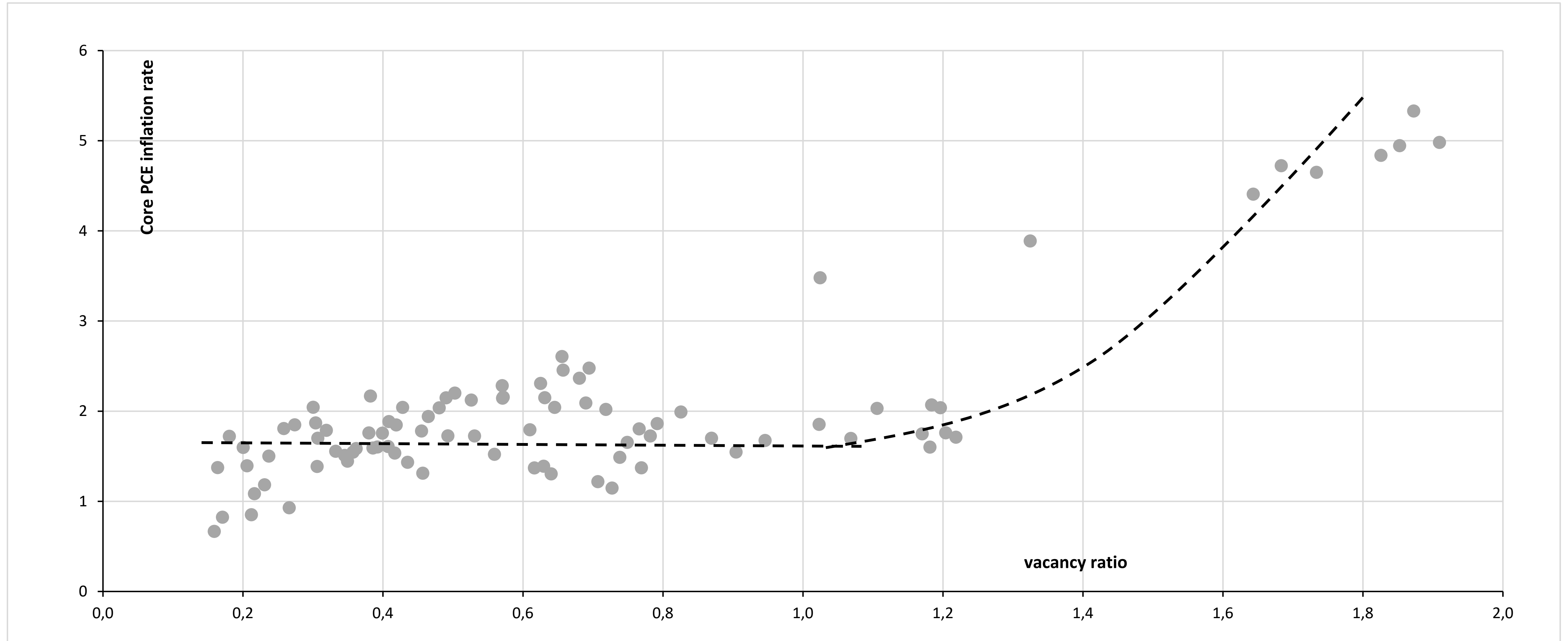
Notes: (1) If Augmented Dickey Fuller unit root tests report non-stationarity, then the first difference values are used; (2) The Akaike Information Criterion: used to choose the proper number of lags for the GC test; (3) Acknowledgment: I am very grateful to Carlotta Breman for helping me with this analysis; (4) GC = Granger causes ....

Conclusion: there is **no** GC evidence of wage → price → inflation spiral ....; **wages follow the inflation rate**. For similar findings, see: Schweitzer & Hess (2000); Hu & Toussaint-Comeau (2010).

Third epicycle: Invoking a non-linear Phillips curve



Third epicycle: a better figure of a non-linear Phillips curve? No, it is spurious …….

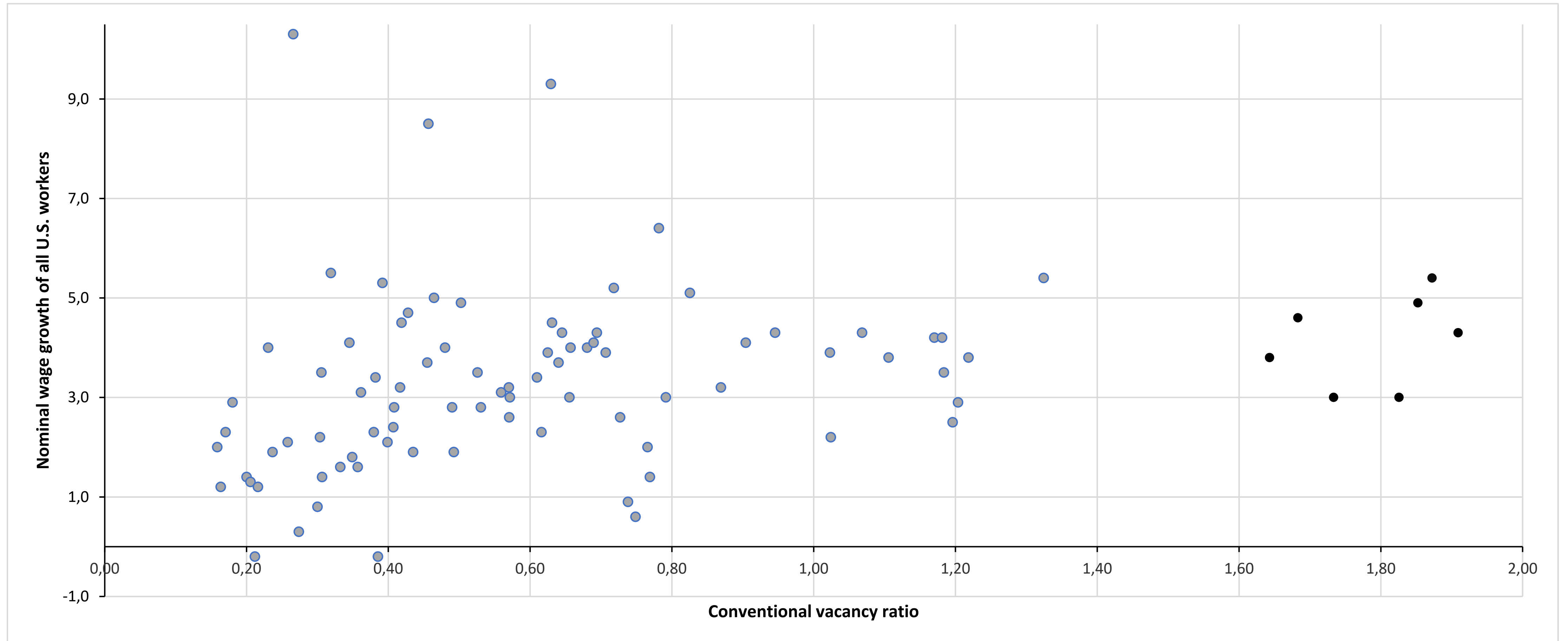


Third epicycle: Building a DSGE model with a Phillips curve that is non-linear in the vacancy ratio ………

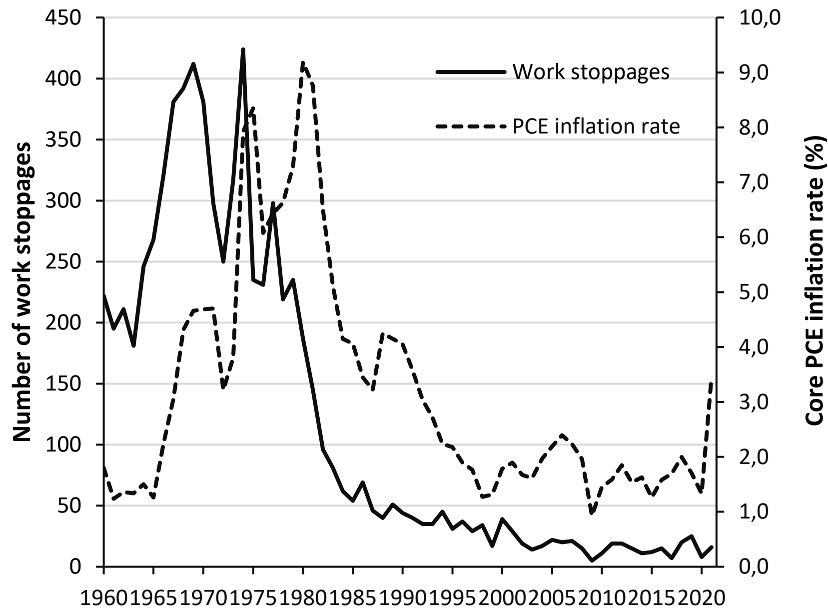
Benigno and Eggertsson (2023) build a New Keynesian DSGE model in which the labour market is modelled via search and matching.

- Nominal wages are "downwardly rigid" as long as $V/U \leq 1$. Nominal wages will rise rapidly when the labour market is tight (*i.e.*, $V/U > 1$).
- The simple (but incorrect) argument is that the Biden demand stimulus of 2021 was excessive and pushed the vacancy ratio above the threshold value of 1.
- Central bankers and private forecasters were caught by surprise, assuming that the Phillips curve was flat.
- Good news for central bankers: the sacrifice ratio of monetary policy is relatively small along the steep part of the modernised Phillips curve. There is no need to burn down the house in order to roast the pig (Robert Solow).
- The DSGE model with a non-linear Phillips curve is proof that the argument is consistent, and hence it must be true. **Q.E.D.**

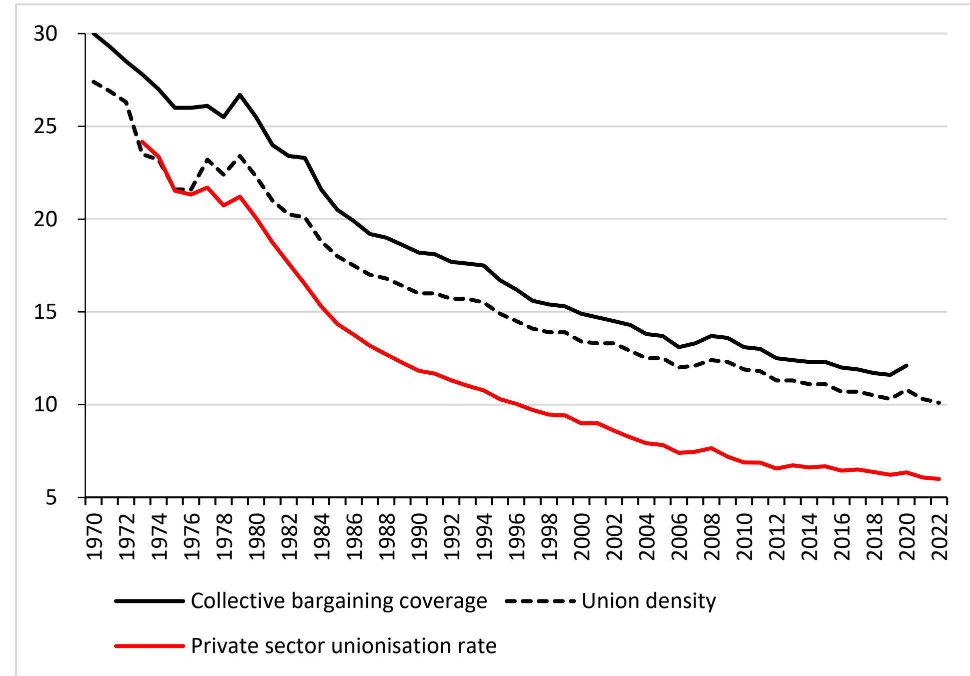
Third epicycle: Here is a figure that is worth more than a thousand words - Vacancy Ratio versus Nominal Wage Growth (2001Q1-2023Q2; percentages)



Third epicycle: Where is the power of U.S. workers to claim higher nominal wages?



Work stoppages and core inflation: The U.S. economy 1960-2022



Union density and collective bargaining coverage: The U.S. economy (1970-2022)

Third epicycle:
don’t mention Greenspan’s traumatised worker ....

Alan Greenspan: “someone who felt job insecurity [....] and so was accepting smaller wage increases ...”

Janet Yellen (1996) in a memo to Alan Greenspan: A rise in job insecurity meant everyone was too scared to ask for higher wages .... Hence, even with falling unemployment, the Fed did not need to raise interest rates.

Fed economists **David Ratner & Jae Sim** (2022): “labor market policy since the 1980s, and structural changes in the labor market, led to reduced worker bargaining power, and it was those forces which induced the large disinflation.”

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The Declining Worker Power Hypothesis: An Explanation for the Recent Evolution of the American Economy

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- Discard the output gap and the unemployment gap as measures of real economic activity in favour of the vacancy ratio → Cherry picking
- The vacancy ratio has a 'natural' value of 1; if V/U rises above 1, the Phillips curve becomes very steep → Ad hoc-ism
- Ignore qualifications which indicate that V/U may be exaggerating the tightness of the U.S. labour market. To avoid cognitive dissonance, do not consider alternative indicators of labour market strength that signal that the U.S. labour market is not 'hot' → The Texas sharpshooter fallacy

The art of paradigm maintenance: How the 'science of monetary policy' mismanages inflation (2021-2023) and gets away with it

- Continue to hammer on the inflation-expectations channel, ignoring evidence showing that this channel is non-existent. → Law of the instrument
- Uphold the claim that the Biden pandemic relief spending was excessive, causing an excess of demand and spiraling inflation. → Illusion of truth effect
- What has to be avoided at all cost, is that the 'traumatised' U.S. worker narrative gets traction. Do not talk about the destruction of the power of organised labour and the inability of workers to protect their real wages. Do not mention distributional conflict! → Avoiding the issue fallacy
- Construct a DSGE model with a non-linear Phillips curve as a smokescreen to hide the fact that 'our diagnosis' is a Just-So story. → Red herring

Vielen Dank für Ihre Aufmerksamkeit

King Alfonso X of Castille, when shown the complexities of the Ptolemaic system, remarked that

“if the Almighty had consulted him on the matter, he would have recommended something a little simpler... "

King Alfonso X of Castile
(aka The Wise) (1221-1284)